

What is claimed is:

1. An aerosol solvent weld cement composition for welding plastic pipe, said composition
5 comprising:
(a) at least one resin adapted bond to said plastic pipe;
(b) at least one solvent; and
(c) at least one propellant;
said composition being under a pressure greater than ambient atmospheric
10 pressure.

2. An aerosol solvent weld cement composition according to claim 1 wherein said at least
one resin is selected from the group consisting of chloropolyvinylchloride resins,
polyvinylchloride resins, ABS resins and ~~butyrate~~ and acrylic resins.
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3. An aerosol solvent weld cement composition according to claim 1 wherein said at least
one resin comprises from about 10% to about 30% by weight of said aerosol solvent weld
cement composition.

20 4. An aerosol solvent weld cement composition according to claim 3 wherein said at least
one resin comprises chloropolyvinylchloride resin present in an amount of about 10% by weight
of said aerosol solvent weld cement composition.

5. An aerosol solvent weld cement composition according to claim 1 wherein said at least
one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane,
25 N-methyl pyrrolidone, dibasicesters, alkylene carbonates, dimethyl formamide, ethylacetate,
methylisobutyl ketone, methyl alcohol, cyclohexanone, and methylethylketone and mixtures
thereof.

30 6. An aerosol solvent weld cement composition according to claim 1 wherein said at least
one solvent comprises from about 50% to about 80% by weight of said aerosol solvent weld
cement composition.

7. An aerosol solvent weld cement composition according to claim 1 wherein said at least one solvent comprises about 40% by weight tetrahydrofuran, 15% by weight acetone, 10% by weight cyclohexanone, and 5% by weight methylethylketone.

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8. An aerosol solvent weld cement composition according to claim 1 additionally comprising a suspending agent.

9. An aerosol solvent weld cement composition according to claim 8 wherein said 10 suspending agent is amorphous silica.

10. An aerosol solvent weld cement composition according to claim 1 wherein said at least one propellant comprises a substance selected from the group consisting of dimethyl ether, isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane and 15 mixtures thereof.

11. An aerosol solvent weld cement composition according to claim 10 wherein said at least one propellant is dimethyl ether.

20 12. An aerosol solvent weld cement composition according to claim 11 wherein said at least one propellant is dimethyl ether and wherein said dimethyl ether is present in an amount of between about 20 % to about 35% by weight of said aerosol solvent weld cement composition.

13. An aerosol solvent weld cement composition according to claim 12 wherein said 25 dimethyl ether comprises about 30% of said aerosol solvent weld cement composition .

14. An aerosol solvent weld cement composition in a container for welding plastic pipe, said composition comprising:

- 30 (a) at least one resin adapted to bond to said plastic pipe;
- (b) at least one solvent; and
- (c) at least one propellant;

10 said composition being under a pressure greater than ambient atmospheric pressure; and

15 said composition disposed in a container adapted to contain said pressurized aerosol solvent weld cement composition, said container comprising an outlet and a valve to control the release of said pressurized aerosol solvent weld cement from said container.

15. An aerosol solvent weld cement composition in a container according to claim 14 wherein said at least one resin is selected from the group consisting of chloropolyvinylchloride resins, polyvinylchloride resins, ABS resins and (butyrate) and acrylic resins.

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16. An aerosol solvent weld cement composition in a container according to claim 14 wherein said at least one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane, N-methyl pyrrolidone, dibasicesters, alkylene carbonates, dimethyl formamide, ethylacetate, methylisobutyl ketone, methyl alcohol, cyclohexanone, and 15 methylethylketone and mixtures thereof.

17. An aerosol solvent weld cement composition in a container according to claim 14 wherein said aerosol solvent weld cement composition additionally comprises a suspending agent.

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18. An aerosol solvent weld cement composition in a container according to claim 14 wherein said at least one propellant is selected from the group consisting of dimethyl ether, isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane and mixtures thereof.

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19. An aerosol solvent weld cement composition in a container according to claim 14 wherein said container comprises a 360 degree valve.

20. An aerosol solvent weld cement composition in a container according to claim 14 30 wherein said container comprises an unrestricted actuator.

21. A method of dispensing an aerosol solvent weld cement composition, said method comprising:

(a) obtaining a pressurized aerosol solvent weld cement composition in a dispensing container, said composition comprising:

5 (1) at least one resin adapted to weld to said plastic pipe;

(2) at least one solvent; and

(3) at least one propellant;

said composition being under a pressure greater than ambient atmospheric pressure;

10 *Re, 10* said composition disposed in a container adapted to contain said pressurized aerosol solvent weld cement composition, said container comprising an outlet and a valve to control the release of said pressurized aerosol solvent weld cement from said container; and

15 (b) opening said valve so as to cause said pressurized aerosol solvent weld cement composition to be released from said container.

22. A method according to claim 22 wherein said at least one resin is selected from the group consisting of chloropolyvinylchloride resins, polyvinylchloride resins, ABS resins and (butyrate) and acrylic resins.

20 23. A method according to claim 22 wherein said at least one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane, N-methyl pyrroidone, dibasicesters, alkylene carbonates, dimethyl formamide, ethylacetate, methylisobutyl ketone, methyl alcohol, cyclohexanone, and methylethylketone and mixtures thereof.

25 24. A method according to claim 22 wherein said aerosol solvent weld cement composition additionally comprises a suspending agent.

25. A method according to claim 22 wherein said at least one propellant is selected from the group consisting of dimethyl ether, isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane and mixtures of any two or more of said propellants.

26. A method according to claim 22 wherein said container comprises a 360 degree valve and a unrestricted actuator.

27. A method of welding two sections of plastic pipe at a junction by an aerosol solvent weld 5 cement composition, said method comprising:

(a) obtaining a pressurized aerosol solvent weld cement composition in a dispensing container, said composition comprising:

(1) at least one resin adapted to weld to said plastic pipe;

(2) at least one solvent; and

10 (3) at least one propellant;

said composition being under a pressure greater than ambient atmospheric pressure;

said composition disposed in a container adapted to contain said pressurized aerosol solvent weld cement composition, said container comprising an outlet and a valve to 15 control the release of said pressurized aerosol solvent weld cement from said container; and

(b) opening said valve so as to cause said pressurized aerosol solvent weld cement composition to be released from said container onto at least one of said two sections of pipe at the prospective location of said junction; and

(c) adjoining said two sections of plastic pipe so as to form said junction by welding 20 action.

28. A method according to claim 29 wherein said at least one resin is selected from the *α* group consisting of chloropolyvinylchloride resins, polyvinylchloride resins, ABS resins ~~and~~ *(butyrate resins)* ~~(butyrate)~~ and acrylic resins.

25 29. A method according to claim 29 wherein said at least one solvent is selected form the group consisting of tetrahydrofuran, acetone, diethoxyethane, N-methyl pyrroidone, dibasicesters, alkylene carbonates, dimethyl formamide, ethylacetate, methylisobutyl ketone, methyl alcohol, cyclohexanone, and methylethylketone and mixtures thereof.

30 30. A method according to claim 29 wherein said aerosol composition additionally comprises a suspending agent.

31. A method according to claim 29 wherein said at least one propellant is selected from the group consisting of dimethyl ether, isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane and mixtures of any two or more of said propellants.

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32. A method according to claim 29 wherein said container comprises a 360 degree valve and a unrestricted actuator.

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